

## Figures

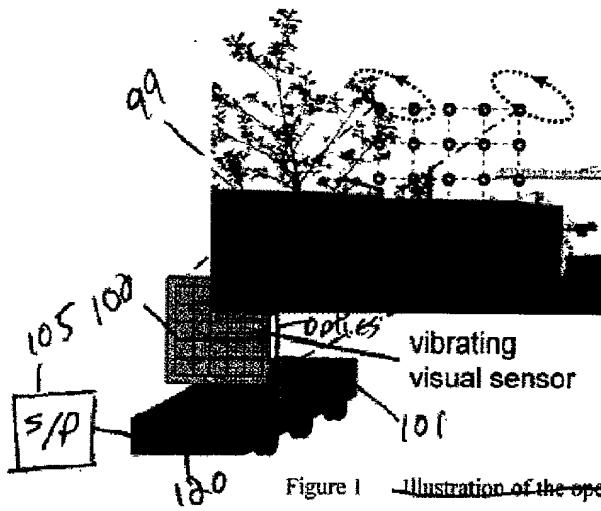


Figure 1 Illustration of the operating principle of the invention

signal from one photoreceptor:

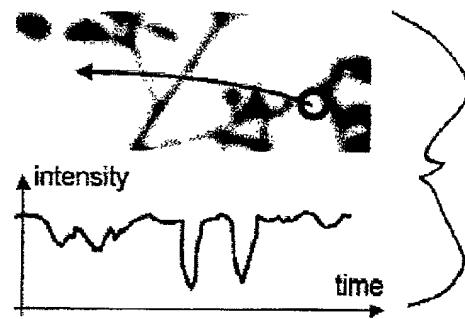


FIG 2

The diagram illustrates a logarithmic photoreceptor and its associated processing chain. The photoreceptor, labeled 'log', is connected to a transimpedance amplifier (A) via a feedback line. The output of A is connected to a 'derivative + dual half-wave rectification' stage, which is further divided into two parallel paths. Each path contains a low-pass filter (308) and a half-wave rectifier (309). The outputs of these rectifiers are summed at node 306. The output of node 306 is fed into an integrator and fire block (320). The output of this block is a square wave pulse. The output of node 306 is also fed into a second integrator and fire block (322), which generates a continuous spike signal. The entire processing chain is contained within a dashed-line box.

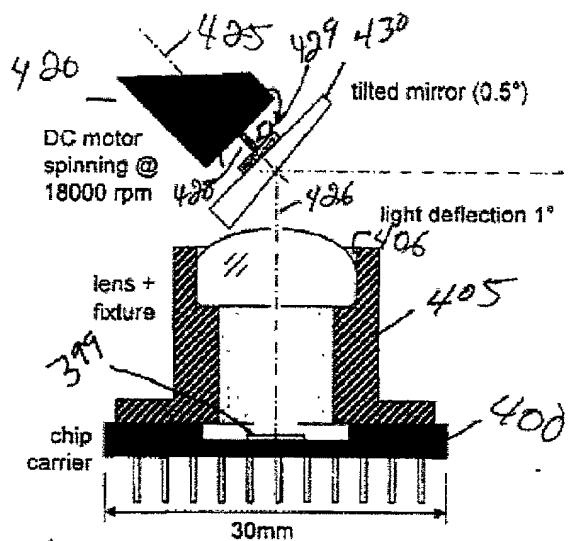


Figure 5f Sketch of a scanning device based on a spinning tilted mirror

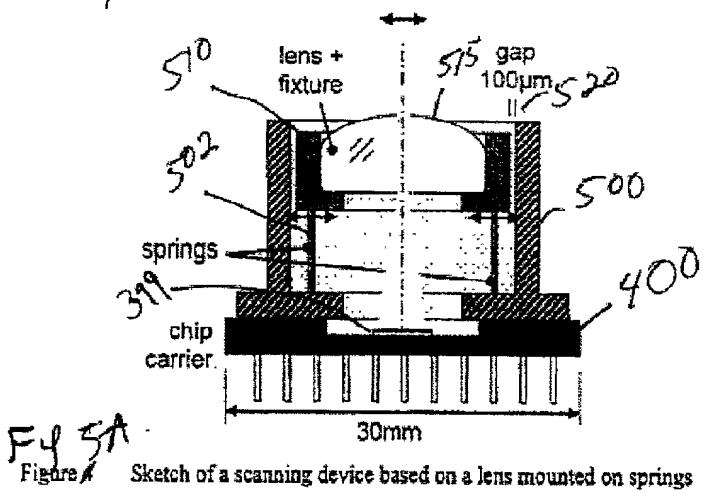
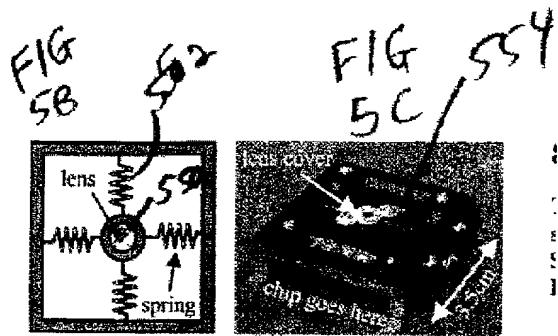


Figure 5A Sketch of a scanning device based on a lens mounted on springs



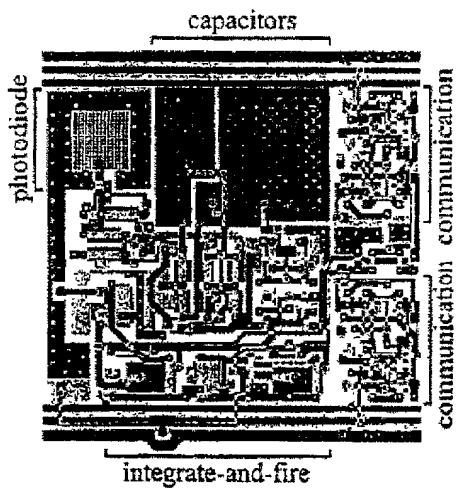
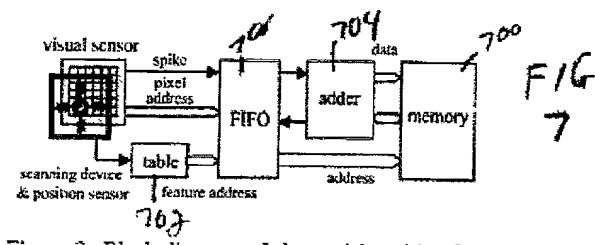
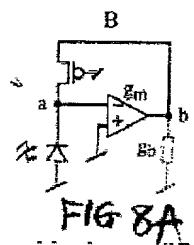


Fig. 6. Layout of a single pixel (68.5  $\mu\text{m}$  by 68.5  $\mu\text{m}$ )





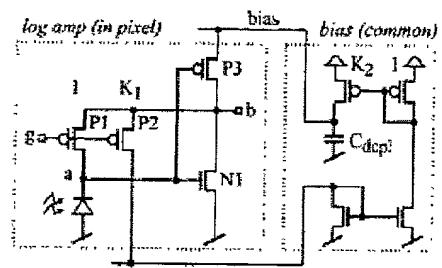


FIG 80